

“Synthetic Drugs: Spice, Ivory Wave, & More



**IDAHO OFFICE OF DRUG POLICY
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Emerging Trend: “Legal Highs”



- Synthetic compounds to mimic effects of illegal drugs
- Sold in products that are marketed as “not for human consumption”
- “Entrepreneurial Scientists” alter molecular structure to create new drugs

Profile of a “Rogue Chemist”



- Mr. David Llewellyn of Scotland
- Unemployed due to economic crisis
- Former crack cocaine addict with palette for drugs
- Review academic papers on neurotransmitter systems in the brain

Designer Drugs to “Legal Highs”



- Hallucinogens, Opioids now include stimulants and cannibinioids
- Aggressive marketing
- Intentional mislabeling
- Growing use of the Internet

What is Spice?

- ◉ Sold as “Legal Marijuana”
- ◉ Mixture of herbal and spice plant products that are sprayed or soaked with synthetic cannabinoids
- ◉ Marketed as incense and “not for human consumption”
- ◉ Also packaged as: K2, Ultra, Summit, Blonde, Standard, Yucatan Gold, Genie, Pot-pourri, Bombay Blue, Black Momba plus many others



History



- Dr. John Huffman, Clemson University, organic chemistry professor
 - Researching effects of cannabinoids on the brain resulted in a 1995 paper that contained the methods and ingredients used to make the compound (JWH-018, his initials)
 - *“Apparently someone picked it up, I think in Europe, on the idea of doping this incense mixture with the compound and smoking it” –Dr. Huffman*

What are synthetic cannabinoids?



- ◉ Structurally diverse class of mostly synthetic substances that bind to cannabinoid receptors in the brain
- ◉ CB1, CB2 receptors primarily affect the central nervous system
 - JWH-018
 - JWH-073
 - JWH-081
 - JWH-200
 - JWH-250
 - HU-210 (on DEA Schedule I)
 - CP47,497

Spice in our Communities



Adverse Effects



ER Visits due to:

- Intense hallucinations and delusions
- Blurry vision
- Elevated blood pressure
- Fast heart beat
- Nausea and vomiting
- Seizures and loss of consciousness

Why these unexpected results?



- ⦿ The packages are labeled “NOT FOR HUMAN CONSUMPTION”;
- ⦿ No regulations are in place and no ingredient list is required
- ⦿ A newer trend of individuals manufacturing their own synthetic cannabinoids

HB139 Bans Spice in Idaho



- Statement of Purpose “The purpose of the legislation is to create safe regulations for the public concerning Tetrahydrocannabinols from synthetic drugs (Spice) that mimic the effects of Cannabis and identifying additional substances to be classified in schedule 1. This legislation continues what is currently being enforced by the Board of Pharmacy. Declaring an emergency.”
- <http://legislature.idaho.gov/legislation/2011/H0139.htm>

Drug Test for Spice



- Redwood Toxicology Lab Test available July 2010 – cost of \$37.50
- Identifies presence of compounds JWH-018 and JWH-073
- Detection period up to 72 hours

Idaho State Police Forensic Services

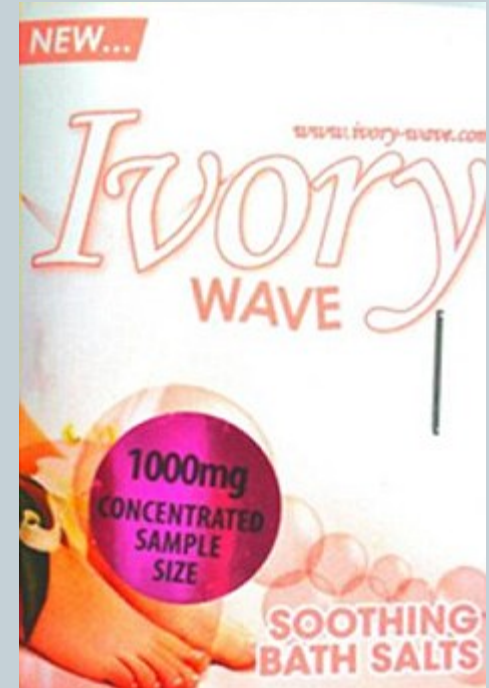


- Developed tests for new Spice ban
- Developed standard test for presence of chemicals in the products
- Developed toxicology lab tests to identify chemicals in blood and urine

What is Ivory Wave?



- ⦿ Sold as bath salts and not for human consumption;
- ⦿ Users snort the salts for amphetamine-type high
- ⦿ Extreme weight loss
- ⦿ Also called Vanilla Sky



What is in Ivory Wave?



- ◉ Mephedrone is a Schedule I as an analogue of a controlled substance methcathinone
- ◉ MDPV or methylenedioxypyrovalerone is a psychoactive drug has no approved medical use
- ◉ WIN 35428 and Pentylone
- ◉ Number of deaths reported from use

Other Synthetic Drugs



- ◉ Naphyrone is a reuptake inhibitor produces stimulant effects
- ◉ DEA will likely move forward with next round of compounds to research and schedule

HB119 Bans Bath Salts in Idaho



- Statement of Purpose “The purpose of the legislation is to create safe regulations and address the emerging threat of synthetic stimulants known as (Bath Salts) that mimic the effects of amphetamine style drugs or ecstasy when consumed. This legislation bans the broad structure-based class of cathinones, which has no history of FDA approved medicinal use. The legislation also declares an emergency.”
- <http://legislature.idaho.gov/legislation/2011/H0119.htm>